

Research in Public Health

Technical Papers

Project ACTIVA

4

Victimization from Urban
Violence: Levels and Related
Factors in Selected Cities of Latin
America and Spain

José Miguel Cruz



Research Coordination
Health and Human Development Division

Pan American Health Organization
525 - 23rd Street, N.W.
Washington, DC 20037, USA

January 1999

The Research in Public Health Series was created by the Research Coordination Program, Health and Human Development Division (HDP/HDR) of the Pan American Health Organization, Regional Office of the World Health Organization (PAHO/WHO) to disseminate papers on methodologies, reports, and findings of investigations sponsored and financed by the Research Grants Program.

These technical papers are conceived as a way of disseminating in an expeditious and timely manner the results of investigations, and are not publications scientifically evaluated or professionally edited.

The ACTIVA project is the outcome of a multicenter study to evaluate violence and related cultural norms and attitudes in selected cities of Latin America and Spain. The study represents a collaborative effort between research centers and institutions of recognized excellence in the subject, under the auspices and technical cooperation of the Pan American Health Organization.

This document has been published in the Spanish language in the *Pan American Journal of Public Health* Vol. 6(4), Pan American Health Organization, 1999. Please use that reference when mentioning the document.

The opinions expressed by the authors are their exclusive responsibility and do not necessarily reflect the criteria or policies of the Pan American Health Organization or its Member States.

© Pan American Health Organization, Division of Health and Human Development, Research Coordination Program. January 1999.

Logo Design “Building Blocks”, on the cover

Research Coordination/Graphic Design Unit

Cover design and composition, and document layout

Clara I. Rodriguez

Contents

INTRODUCTION	1
Violence as a Public Health Problem	2
Violence and Urban Violence	2
Victimization	3
MATERIALS AND METHODS	4
RESULTS	7
Types of victimization from urban violence in the cities studied	7
Variables associated with urban victimization	8
DISCUSSION	9
ACKNOWLEDGEMENTS	12
REFERENCES	13

FIGURE AND TABLES

FIGURE

1. Percentages of victimization from various causes, by city 7

TABLES

1. Index of global victimization (0-2.5) by city according to personal and behavioral variables..... 9
2. Homicide rates (per 100,000 population) in selected cities in Latin America and Spain in the 1990s 10

Victimization from Urban Violence: Levels and Related Factors in Selected Cities in Latin America and Spain

José Miguel Cruz¹

This article compares the levels of victimization associated with various causes and identifies their related factors in eight cities in Latin America and Spain. For this purpose regional data from the Multicenter Study, Project ACTIVA, were used. This study, coordinated by the Pan American Health Organization, was conducted in 1996. The sample studied consisted of 10,821 people between the ages of 18 and 70 in the cities of Salvador de Bahía and Rio de Janeiro, Brazil; Cali, Colombia; Caracas, Venezuela; Madrid, Spain; San José, Costa Rica, San Salvador, El Salvador, and Santiago, Chile. The results reveal that the levels of victimization from various types of violence are different in each city and that the variables most frequently associated with victimization in cities, although not in all of them, are gender, age, and alcohol consumption.

INTRODUCTION

In late 1997 one of the cables transmitted by a news agency read: "The police reported that four people who were sleeping on the street, among them a pregnant woman and two children, were murdered early this morning in Rio de Janeiro by two strangers who shot them from a moving vehicle." (1) The following year another cable reported the following news item: "A senior official of Mexico's Secretariat of Foreign Relations was murdered on Saturday, and his body, with at least 15 stab wounds, was found in the Benito Juárez district..." (2). Reports of this nature are inundating the news services in the majority of the countries in the Americas, demonstrating that violence has become a daily occurrence in almost all Latin American societies today. These two cables reveal not only the pervasiveness of violence today in both Mexico City and Rio de Janeiro, but also that people with a wide range of social characteristics are becoming victims of violence; that is, the violence common in cities today is capable of making victims not only of the poorest and most vulnerable segments of the population in the Region, but those with a certain degree of power.

This is not the appropriate place to analyze the extent of violence in each country in the Region, since this has been covered extensively in other studies on violence in related research. Suffice it to say that Latin America and the Caribbean are considered the most violent areas in the world, since they are characterized by a violence rate of approximately 20 homicides per 100,000 population (Table 1) (3, 4). Significant differences

¹ Universidad Centroamericana José Simeón Cañas, Instituto Universitario de Opinión Pública de la UCA. E-mail address: mcruz@iudop.uca.edu.sv, Telephone: (503) 273-4400, ext. 417, Fax (503) 273-7020.

can also be seen in the extent of violence in the cities, countries, and subregions in Latin America. For example, countries such as Colombia and El Salvador have exhibited mortality rates in recent years of more than 60 deaths per 100,000 population. Around 25 percent of these deaths can be attributed to external causes, whereas in countries such as Chile and Costa Rica the rates do not exceed 10 murders per 100,000 population. (5, 6)

Violence as a Public Health Problem

As the problem of violence has increased, so has awareness of its impact on various areas of social life, especially health. More than anything, violence has a decisive impact on living conditions, in particular because it jeopardizes people's physical integrity and survival, (7) while undermining the quality of life and, ultimately, eroding the basic networks for social interaction that sustain community development. (8) As noted by PAHO, violence—particularly violence that does not result in death—directly affects the “state of complete physical, mental, and social well-being” of the people affected, which is now understood as health. (9, 10) Considered in this light, violence, in most of its expressions, produces disease. (11) In violent environments people must deal with morbidity and risks of mortality that in other circumstances they would not have to contend with. Morbidity caused by violence, in turn, has an effect on the health systems of a society, since it increases the demand on the health services, which are not often equipped to combat it. The excess burden on the health system manifests itself not only in the treatment of injuries resulting from aggressive behavior—the most frequent kind of violence—but also in the demand in other areas fundamental to health: physical rehabilitation, psychological care, the recovery of productive capacity, and adaptation to new bodily limitations.

Thus, the XXXVII Meeting of the PAHO Directing Council decided to declare violent behavior a public health problem and to urge governments in the Region to establish national policies and plans, mobilize resources for the prevention and control of violence, and emphasize the definition of the problem and identification of the most vulnerable groups. (9)

Violence and Urban Violence

The concept of violence has several interpretations, although in its most generic sense it refers to the use of extreme force. However, the definition adopted in considering it a public health problem refers to the “use or threat of physical force with the intention of doing harm to another or to oneself.” (11) There are two elements in this concept that must be underscored: first, it refers to physical force, which excludes other kinds of noncorporeal aggression; and second, it involves intent, which excludes unintentional events that produce injuries, such as accidents. This was the concept adopted by the Project ACTIVA investigators to orient the study of violence and its underlying attitudes and norms. (12) However, when speaking of urban violence, further precision is required. Many authors refer to urban violence as something closer to crime. (13, 14) Although most instances of violence perpetrated against others are unlawful and, accordingly, punished by society, the term “urban violence” has usually been applied to crimes committed in the public environment in large cities. Thus, urban violence is considered violence perpetrated within the framework of the relations and dynamics characteristic of urban living, whose most

frequent expressions are armed robbery, threats, assault, beating, kidnapping, and homicide.

Victimization

Now that urban violence has been defined, victimization is considered to consist of acts in which a person is the object of force that produces physical or psychological harm. Who are the most common victims of urban violence? According to some criminology studies, in the past the problem of victims, especially victim-proneness, was approached by examining the biological or situational "weaknesses" that turned certain people into victims. (15, 16) From this perspective it was consequently presumed that victims possessed personal traits, such as being female, young, elderly, or mentally deficient--that, unlike the victimizer, made them vulnerable. Nowadays, however, the approaches to the study of victimization point to closer links, rather than differences, between the demographic characteristics of victims and victimizers. (17) Consequently, from a public health standpoint, it is more important to characterize the most frequent victims of violence from a demographic and behavioral, rather than personal, perspective. In this context most studies reveal that victimization as a consequence violence, especially violence resulting in death or physical harm to a person, is associated with certain demographic variables. In fact, in the United States of America, the source of most studies on the subject, age emerges as the single most important variable in predicting the risk of victimization from violence. (17, 18) Other variables associated with victimization due to urban violence, according to some studies, are gender, the socioeconomic level of the victims or the community in which they live, and their race or ethnicity. According to a 1994 national survey on victims of crime in the United States, men, persons of color, Hispanics, young people, the poor, and the residents of inner cities were the most vulnerable to violence. (19)

In Latin America, the trends in certain variables appear to be very similar. In a review of mortality from violence in the 1980s conducted by Yunes, (20), it was found that in all countries studied in Latin America and the Caribbean, the mortality ratio between men and women was always greater than 1, and in all, except for Cuba, the difference was greater than that in the United States. Furthermore, it was observed that violent deaths tended to increase with age. Research conducted in Rio de Janeiro revealed that between 1995 and 1996 the most frequent victims of theft, assault, and threats were under 30 years old, and most particularly males. (21) In Caracas, Sanjuán confirmed that approximately 95% of homicide victims were men and that 70% were between the ages of 15 and 29, (22) while in Cali 53% of the victims of registered homicides were males between the ages of 15 and 29. (23) In San Salvador, men between 16 and 25 years of age faced a probability of death by murder that was 10 times higher than that for women in the same age group. (24) Additional studies and reviews of the registries in various cities of the Region could be cited as further evidence, but the fact remains that in the majority of Latin American urban centers the trends with regard to age and gender are similar. (25)

Studies published in Latin America are inconclusive about other personal variables that may be related to victimization from urban violence. Although it is often assumed that belonging to a low-income group is a risk factor for becoming a victim of violence, some studies suggest that the environmental context in which the violence takes place is more important than the personal characteristics of the victim. For example, Akerman (26) found in São Paulo that thefts predominated in areas with better living conditions, while

homicides tended to occur in outlying poor areas. Moreover, a Santiago study showed that "thefts involving the use of force" were concentrated largely in middle- and high-income areas, while "thefts involving violence"--which imply greater violence involving people --tended to occur in middle and lower-class neighborhoods. (27)

On the behavioral level other variables come into play, such as the consumption of alcohol and the possession of weapons, which appear to be related to victimization and, accordingly, become a risk factor for aggressive behavior. Generally speaking, these variables have been associated more with the perpetrators of violence than with their victims. (17, 18) Nevertheless, analysis of the problem of victimization from another perspective has also revealed certain connections between victims, the consumption of alcohol, and the possession of weapons. In Cali it was found that 25 percent of murder victims were under the influence of alcohol, (28) while in El Salvador the percentage of drunk victims of violence admitted to hospital centers rose from 20 % in a normal week to 35 % in a holiday period (29). Concerning weapons possession, Guerrero, citing a U.S. study, (28) notes that the possession of firearms increased the risk household members dying by 2.7 times.

It is in this area of victimization from urban violence that this article proposes to examine the regional results of the ACTIVA Multicenter Study. To this end, a comparison will be made of the frequency of victimization related to theft, threats, assault, and wounds in the eight cities participating in the study, seeking to establish the similarities and differences among them. Next, an attempt will be made to confirm the demographic and behavioral variables associated with victimization from violence and the most frequent characteristics of the victims in each of the cities.

MATERIALS AND METHODS

The sample used in the ACTIVA Study has been described in another chapter in this same book devoted to the methodology of the regional study. Suffice it to say, then, for the purposes of this section, that the ACTIVA Study was based on a sample of 10,821 interviews conducted in eight cities: Salvador de Bahía, Brazil ($n = 1,384$); Cali, Colombia ($n = 2,288$); Caracas, Venezuela ($n = 1,297$); Madrid, Spain ($n = 1,105$); Rio de Janeiro, Brazil ($n = 1,114$); San José, Costa Rica ($n = 1,131$); San Salvador, El Salvador ($n = 1,290$), and Santiago, Chile ($n = 1,212$). The sample was stratified by clusters according to socioeconomic level and population density. The people interviewed in each household were selected by means of systematic sampling without substitution. It is assumed that the sample for each city is representative of the population between 18 and 70 years of age. The sample design permits estimates to be made with a reliability of 95%.

For the purposes of the analyses included in this article, the portion of the Project ACTIVA questionnaire devoted to victimization was utilized. In the eight cities included in the regional sample a questionnaire consisting of 14 questions on various types of victimization as a result of criminal violence was administered. The present survey employed variables based on some items and response scales in the questionnaire. In some cases these variables corresponded directly to the results of individual items; in others, especially those referring to victimization, they emerged from the treatment of several items. Some of these variables were constructed by Orpinas (30) in her compilation and refining of the ACTIVA databases, while others were developed by the author. In

addition, items reflecting observations of victimization were omitted, as were those concerning homicide and suicide--the former because they did not refer to direct victimization of the interviewee, and the latter, despite their importance in defining urban violence, because the formulation of the question made it difficult to identify the special characteristics of the victim, which is essential for this kind of work. In any case, it must be emphasized that--given the nature of the study, which was based on interviews--the questionnaire collected statements on experiences of victimization and did not record the facts per se; accordingly, the variables referred to reports of the event and depended on the statements of the respondents in each country.

The demographic variables analyzed correspond to the items in the questionnaire, which collected information on the gender, age, and socioeconomic level of the interviewees. The values of the age variable were recategorized to make their values more manageable in the analysis. The interviewees were grouped into four age groups to mirror the trends in victimization from violence: 18 to 25, 26 to 35, 36 to 50, and 51 to 70 years of age. The values of the variable for socioeconomic level divided the populations of each city into the following categories: high, middle, and low.

The behavioral variables were: a) Frequency of alcohol consumption. This is an ordinal variable that describes the consumption of a certain amount of alcohol within a one-month period: *How many times in the past month have you had more than five drinks of liquor or bottles (cans) of beer on a single occasion?* The possible responses were: never, once, three or four times, five to ten times, and more than ten times. b) Possession of weapons. A dichotomous variable that identified firearm possession by the interviewee: *Do you have any firearms (pistol, handgun, rifle) in your home?*

The variables of victimization were: a) Victim of armed robbery. A dichotomous variable generated by the following item: *Has someone armed with a weapon stolen from you in the past 12 months?* Their values denote having or not having been the victim once of some act of this nature at least once. b) Victim of threats. Variable constructed from three questions: *In the past 12 months, has a policeman or some other public authority demanded money from you?; Has someone who was not a policeman or public safety officer threatened you in order to rob you or demand money from you in the past 12 months?; and In the past 12 months has anyone threatened you to force you to change your place of residence, to change your opinions, or to keep quiet about something you know?* to indicate victimization as a result of extortion or threat, at least once. c) Victim of aggression. Dichotomous variable based on the following item: *Have you been struck by one or more persons in the past 12 months?* This variable denotes having been the victim at least once of an assault involving physical blows. d) Victims of wounds. Dichotomous variable founded on the following reagents: *Have you wounded with a knife in the past 12 months?* and *Have you been wounded with a firearm in the past 12 months?* This refers to having been wounded, at least once, by firearm or knife. e) General victimization. Variable that captures all other forms of victimization (theft, threats, assaults, and wounds). Inasmuch as each form of victimization included in this variable has a different impact on the victim, each was weighted empirically with a value inversely proportional to the frequency of each incident, that is, the most frequent form of victimization (theft) would be assigned a value of 1, and as the frequency of a type of victimization diminishes, its weight would increase (for example, wounds = 15). This avoids attributing a single degree of effect to events so dissimilar as threats and wounds. This general victimization variable was utilized

in two different forms. In the first phase of the analysis it was used dichotomously, in which one value expressed at least one victimization experience, and the other, the absence of victimization. In the second part of the analysis the same variable was used throughout, having been normalized by transforming it to a base-10 logarithmic scale. This variable maintained an acceptable correlation with the original continuous variable (r of Pearson = 0.7810).

A description of the data collection methods for each city is presented in the section on the methodological design of ACTIVA. It is merely necessary at this point to emphasize that in all the cities the interviews were conducted personally and through visits to the homes of the interviewees. All interviews were coded and the results registered in a computerized database in the city in which the survey was conducted. The databases were therefore local. These were revised locally and subsequently sent to a regional data collection center where they were further refined and compiled into a single SPSS database for Windows (30). The data used in this work were analyzed using the same program. (31)

The procedure for analyzing these data consisted of two parts. First, a general comparison was made of the different types of victimization by city in an attempt to determine the magnitude of the various types of violence experienced by citizens in each of the eight cities included in the study. To this end the victimization percentages by city for each violent act were examined, and the percentages of the levels of victimization from violence that the inhabitants face in each city were calculated. Subsequently--the essence of this task--the association between demographic and behavioral factors and the continuous variable of overall victimization in each city was ascertained, conducting analyses of the variance for this purpose. When this was not possible, since the variances among the groups were heterogeneous, a Student's distribution was employed for nonhomogeneous variances. (31, 32) When more than two groups were compared, the Kruskal-Wallis test was done. (33) In order to avoid the problem of multiple comparisons, Scheffé's test was done.

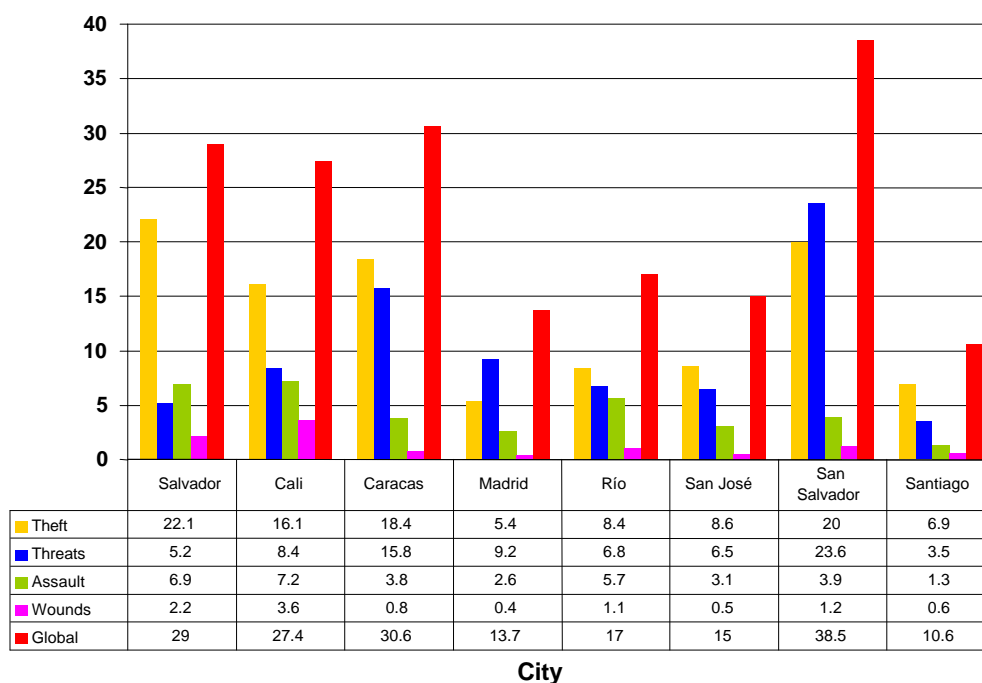
The criterion for utilizing the global victimization variable and not the assault and wounds variables, which are of greater relevance to public health, was that the low number of victims of assaults and wounds in each city made it impossible to conduct a sound statistical analysis. The global victimization variable has the advantage of incorporating a large number of cases per city, in addition to which, through weighting, it assigns the proper importance to the most serious incidents of victimization and makes it possible to determine the extent to which people have been victimized by urban violence, according to their own statements. For that reason, in the second part of the analysis it was decided to utilize the global victimization variable in the form of an index and rather than as percentages of dichotomous values, thereby making it possible to consider the most severe forms of victimization (assaults and wounds) in the equation without undermining the validity of the analysis.

RESULTS

Types of Victimization from Urban Violence in the Cities Studied

Figure 1 shows the percentages of victimization connected with the various causes studied. Whereas in San Salvador the percentage of people reporting having experienced any kind of violence was 38.5%, in Santiago this figure did not exceed 11%. Moreover, cities other than San Salvador, such as Caracas, Salvador de Bahía, and Cali, registered high levels of global victimization (30.6%, 29%, and 27.4%, respectively), while in the remainder of the cities the percentages were lower: Rio de Janeiro, 17%; San José, 15%; and Madrid, 13.7%.

Figure 1. Percentages of victimization from various causes, by city
Project ACTIVA, 1998



According to statements made by the interviewees, with the exception of Madrid and San Salvador, in the majority of the cities armed robbery was the most frequent kind of victimization; the highest percentage (22.1%) was recorded in Salvador and the lowest in Santiago (6.9%). Threats (of assault, death, or extortion) produced a high percentage of victims in San Salvador (close to 25%); in contrast, in Santiago and in Salvador de Bahía this figure did not exceed 6%. The percentages of victimization that were most serious were violent acts such as assaults and wounds, either from firearms or knives. In Cali, Salvador, and Rio de Janeiro the percentage of victims of assaults or physical blows was over 5% (in Cali, the figure was 7.2%), while in Madrid and Santiago acts of this nature did not account

for more than 2%. Finally, victims of wounds were most frequent in Cali, while in Madrid, San José, Santiago, and Caracas the percentage of people wounded was not even 1%.

An analysis of the variance showed no statistically significant differences among the levels of global victimization in Madrid, San José, and Santiago ($P < 0.05$), nor among those of Salvador de Bahía, Cali, and Caracas, nor were differences detected among Rio de Janeiro, Madrid, and San José. In contrast, however, there were significant differences between San Salvador and all the remaining cities ($P < 0.05$).

Variables Associated with Urban Victimization

Table 1 shows the indexes of global victimization for each city studied with a breakdown by gender, age, socioeconomic stratum, alcohol consumption, and weapons possession by the victim. As may be observed, the indexes of global victimization from violence did not always vary in the same manner in all the cities. In Salvador de Bahía the gender of the victim and his consumption of alcohol were the discriminating variables of the victimization indexes ($P < 0.05$). A higher level of victimization was detected among men in this city than women, while those who tended to consume alcohol more frequently the victims of violent acts. Although in the case of age a higher index can be observed in the group aged 18 to 25, no statistically significant differences were found in age or in the rest of the variables included in the analysis. In Cali, the most frequent victims of the general violence were younger men who consumed alcohol more frequently and who owned a firearm. In addition, the indexes of victimization were somewhat higher in the high socioeconomic stratum, although the differences observed were not statistically significant ($P > 0.05$). In Caracas all the differences among the variables studied were statistically significant: the gender of the victim (men more than women); age (young people between 18 and 25 years of age more than those of any other age group); socioeconomic stratum (the people in low strata more than the other strata); frequent alcohol consumption; and the possession of weapons. The indexes of global victimization in Madrid varied significantly only with regard to the variables of age and alcohol consumption. In the first case, the highest index also was among young people, while in the second people who consumed more alcohol had experienced more acts of urban violence. In Rio de Janeiro the victimization indexes were higher and statistically different from the rest in men, younger people, and those who consumed alcohol more frequently. In San José, men, young people, those who consumed alcohol more frequently, and those who possessed a firearm were the most harmed by violence. The results of the statistical analysis point out that in San Salvador the differences in the victimization indexes related to gender, age, and socioeconomic stratum were statistically significant, and the highest indexes in each of those variables indicate a more frequent history of victimization than in the rest. Finally, in Santiago, the only variable associated statistically with the index of general victimization from violence was alcohol consumption: those who consumed alcohol three to four times a month were those registering the highest levels of victimization.

Table 1. Index of global victimization (0-2.5) by city according to personal and behavioral variables. Project ACTIVA, 1998

Variable	CITY Salvador (Bahia)	Cali	Caracas	Madrid	Rio de Janeiro	San José	San Salvador	Santiago
<i>All</i>	0.156	0.177	0.174	0.072	0.106	0.078	0.306	0.054
Gender								
Male	0.180	0.236	0.256	0.078	0.154	0.122	0.337	0.055
Female	0.135	0.125	0.122	0.068	0.072	0.045	0.281	0.054
	T= 2.71 *	F = 59.1 *	t=7.01 *	F=0.63	t=4.44 *	t=5.51 *	t=2,10 *	F=0.00
Age (years)								
18-25	0.180	0.234	0.230	0.113	0.168	0.125	0.365	0.069
26-35	0.153	0.177	0.184	0.078	0.108	0.075	0.339	0.052
36-50	0.158	0.144	0.162	0.052	0.109	0.070	0.289	0.052
51-70	0.120	0.134	0.108	0.050	0.046	0.048	0.201	0.043
	F=1.79	F=9.24 *	F=7.51 *	F=5.57 *	F=7.41 *	F=5.89	F= 6.15 *	F=0.87
Stratum								
High	0.139	0.219	0.118	0.076	0.144	0.104	0.191	0.044
Middle	0.161	0.181	0.139	0.068	0.106	0.081	0.315	0.039
Low	0.155	0.168	0.188	0.079	0.096	0.064	0.328	0.064
	F=0.25	F=1.93	F=3.40 *	F=0.33	F=1.89	F=2.02	F=5.70 *	F=2.36
Consumption alcohol (times)								
Never	0.123	0.134	0.135	0.063	0.086	0.066	0.290	0.048
1 or 2	0.173	0.206	0.195	0.081	0.135	0.115	0.362	0.046
3 or 4	0.202	0.304	0.201	0.088	0.204	0.101	0.392	0.131
5 to 10	0.242	0.317	0.300	0.187	0.099	0.164	0.371	0.085
More than 10	0.204	0.583	0.328	0.193	0.277	0.474	0.455	0.030
	H=21.41*	H=105.1*	H=18.36*	H=12.32*	H=23,14*	H=19.75*	H=8.60	H=14.11*
Weapons								
Yes	0.226	0.304	0.252	0.070	0.127	0.124	0.333	0.081
No	0.152	0.169	0.166	0.072	0.105	0.072	0.304	0.052
	t=1.80	t=3.19 *	t=2.46 *	F=0.00	F=0.28	t=2.20 *	F=0.29	F=2.44

* $P < 0.05$.

Discussion

Comparison of victimization levels in the eight cities studied in the Project ACTIVA shows, first of all, that there is a certain similarity between victimization trends indicated in the multicenter study and the homicide rates found in Table 2 as local indicators of violence for which information is available. This suggests that behind the levels of violence expressed formally in the homicide rates other forms of victimization are also present that are part of the problem of urban violence in each city, within which homicide would be the most obvious expression. Comparison of the percentages of victimization in the cities studied reveals that as their homicide rates would indicate, Santiago, San José, and Madrid had the lowest levels of victimization from violence, unlike cities such as San Salvador, Cali,

and Caracas, in which the two registry systems utilized—ACTIVA and homicide rates—revealed high indexes of victimization. This should not be interpreted to mean that the ACTIVA victimization variable was constructed with a view to affecting the homicides rates; the sole intent is to point out the usefulness of measures of this nature in approaching the problem of violence and demonstrating the different dimensions in which it can be expressed.

Table 2. Homicide rates (per 100,000 population) in selected cities of Latin America and Spain in the 1990s. Project ACTIVA, 1998

City	Year	Rate
Cali, Colombia ^a	1996	125.0
Caracas, Venezuela ^b	1996	56.0
Madrid, Spain ^c	1997	3.9
Rio de Janeiro, Brazil ^d	1996	60.7
Sao Paulo, Brazil ^e	1993	50.2
Costa Rica ^f	1991	7.1
San Salvador, El Salvador ^g	1996	84.5
Santiago, Chile ^h	1996	8.0

Source: Prepared by: a) Rubio M. Criminalidad violenta en Colombia. b) Sanjuán AM. La criminalidad en Caracas: percepciones y realidades. c) Delegation of the government of Madrid. d) Soares LE, Sento Sé JT, de Souza Rodrigues JA, Piquet L. Criminalidade urbana e violencia no contexto internacional. e) Adorno S. La criminalidad violenta urbana en Brasil: tendencias y características. f) Roberts D. Mortalidad por lesiones no intencionales y violencia en las Américas. g) Cruz JM y González, LA. La magnitud de la violencia en El Salvador. h) Estadísticas de Carabineros de Chile.

Second, it shows that the levels of victimization in the cities studies—expressed as the percentage of people who report having experienced some act of violence—are not only very different in terms of magnitude but also the type of victimization. In other words, the acts that in one city figure as the most common generator of victims of violence, in another city rarely produce victims. For example, the data show that the residents of San Salvador are two times more likely to be the victims of general violence than the residents of Rio de Janeiro; however, a higher percentage of the residents of this latter city are victims of assaults. Particular attention should be paid to the levels of assaults and injury from wounds detected in Cali and Salvador de Bahía and to the levels of assaults in Rio de Janeiro, which are double or triple those of any other city included in the multicenter study and show the substantial impact they have on global victimization in those cities. Judging from the responses of the interviewees in Salvador de Bahía, Caracas, San Salvador, and Cali, citizens in these cities are exposed to armed robbery twice as frequently as in Madrid, Rio de Janeiro, San José, and Santiago.

These data underscore an important fact confirmed in this study: Urban violence is different in each location, so much so that even though Cali and San Salvador have very high levels of victimization from urban violence, this does not mean that the configuration and impact of victimization are the same for both cities. In San Salvador, for example, one type of victimization appears to prevail, based on incidents that can be described as street crime: thefts and threats; On the other hand, although a high proportion of thefts was

registered in Cali, as in Salvador de Bahía, there is a high percentage of victimization by more serious violent acts: assault and wounds. Indeed, these two cities are among the most violent in the Region, although these differences serve to explain that the perpetrators and victims of violence are not the same people. This confirms the assumption that confronting violence in Cali and San Salvador is not the same, and that any strategy to address the problem and its impact on health should take these differences into account when seeking to make prevention more effective.

It must also be noted that since these levels of victimization depend on people's accounts of the incidents, the record of reported victimizations in the study may be subject to errors in the recall of the interviewees. Given the serious nature of certain events such as being wounded, despite the efforts of local investigators to pin down the time frame in the interviews, some interviewees may have overreported violent acts. In such circumstances their occurrence would be overestimated. Although it cannot be confirmed, the possibility of overestimation should be considered a substantial limitation to survey data collection.

Concerning the variables associated with victimization from violence, it should be noted that the potential that a personal characteristic will become a risk factor for victimization also depends on the city in which the person resides and that, in turn is related to the kind of violence that prevails in that area. This statement is grounded in the fact that no conclusive evidence was found in the study that, despite its recognized importance, a specific variable (age, for example) constituted a differential factor in any of the cities studied. The results of the multicenter study indicated that there were variables or personal characteristics related to victimization in most of cities, although not all: gender, age, and alcohol consumption. In six of the eight cities (Salvador de Bahía, Cali, Caracas, Rio de Janeiro, San José, and San Salvador) the most frequent victims of urban violence were men. However, this does not mean that women are subject to more violence in the other cities (Madrid and Santiago); it simply means that the available data provides no proof to support the idea that in the Spanish and Chilean capitals gender constitutes a criterion for differentiating the victims of violence, since it may be that in places where the impact of violence is very low the gender differences in victimization are not very large and, therefore, the low probability of assault is almost equal for men and women.

As far as age is concerned, the results of the ACTIVA project in six cities confirm the trends revealed by other studies: Younger people—between 18 and 25 years old—turned out to be the group most victimized by violence. This is true for the residents of Cali, Caracas, Madrid, Rio de Janeiro, San José, and San Salvador, but not for Salvador de Bahía and Santiago. However, the finding that victimization is a function of age is not limited to younger people; in all the cities in which there was a relationship between age and victimization it was observed that as age increases, the index of victimization decreases in such a manner that the probability of becoming the victim of a violent act declines with the age of the victim.

In all the cities except San Salvador, people who consumed alcohol most frequently also most emphatically reported being victims. Moreover, in most of the cities the victimization index paralleled the frequency of alcohol consumption--that is, the higher the consumption of alcohol, the greater the index of victimization. These results support the contention that alcohol is not only a factor related to violence, but also to the possibility of falling victim to violence. Since alcohol consumption is a behavioral variable and, hence,

subject to modification, this finding has implications for preventive activities that can be undertaken to mitigate the problem.

Of the remainder of variables studied, associations were found only between socioeconomic stratum and the possession of firearms in some cities. In Caracas and San Salvador urban violence was observed more frequently in the low strata than in the others, while in Cali, Caracas, and San José the possession of weapons, in addition to being very frequent in these three cities, constituted a factor related to victimization.

In conclusion, this article reveals that victimization from violence reported by the people varies in most of the cities studied. These differences should not be attributed only to the levels of violence, since they may vary greatly, but to the expressions of violence, which affect people in a wide variety of ways. The differences in the magnitude and expressions of violence can be related to a certain degree to the characteristics of the most frequent victims of violence. Nevertheless, the results indicate that age, gender, and alcohol consumption are the variables most clearly associated with victimization: Men, younger people, and people who consume alcohol are the groups most frequent victims of aggressive acts in the majority of cities studied, and at the same time are the groups that require the most constant surveillance in the struggle against the effects of urban violence.

ACKNOWLEDGMENTS

This article is based on the data from the Multicenter Study on Cultural Norms and Attitudes Toward Violence, Project ACTIVA, which was conducted in eight cities in Latin America and Spain under the auspices and coordination of the Pan American Health Organization (PAHO/WHO). The author wishes to thank Ruby Esmeralda Arana, Giovanni Flores, and David Navarro for their collaboration in the preparation of this article.

REFERENCES

1. Agencia de Noticias EFE. Asesinan a cuatro indigentes. San Salvador: *El Diario de Hoy*, 10 de diciembre de 1997:22.
2. Agencia de Noticias EFE. De quince heridas con arma blanca ultiman alto funcionario mexicano. San Salvador: *La Prensa Gráfica*, 10 August 1998:50.
3. World Bank. El crimen y la violencia como problemas para el desarrollo en América Latina y el Caribe. Presented at the seminar El Desafío de la Criminalidad Urbana. Río de Janeiro: Inter-American Development Bank; 1997.
4. Bobadilla JL, Cárdenas V, Couttolenc B, Guerrero R, Remenyi MA. Medición de los costos de la violencia. Resultados de un taller organizado por la Organización Panamericana de la Salud (OPS) y el Banco Interamericano de Desarrollo. Caracas: OPS; 1995.
5. Roberts D. Mortalidad por lesiones no intencionales y violencia en las Américas: Libro de referencia. Washington, D.C.: Pan American Health Organization, 1997.
6. Pan American Health Organization. Desarrollo del plan de acción regional sobre violencia y salud. Washington, D.C: OPS; 1996. (Mimeo).
7. Guerra de Macedo C. Sociedad, violencia y salud. [Editorial.] *Bol Oficina Sanit Panam* 1994; 117 (5): i.
8. Martín-Baró I. Acción e ideología: psicología social desde Centroamérica. 8ava. ed. San Salvador: UCA Editores; 1997.
9. Pan American Health Organization, Division of Health Promotion and Protection. Salud y violencia: Plan de acción regional. Washington, D.C: OPS; 1994.
10. Guerra de Macedo C. Sociedad, violencia, y salud. Una nueva agenda para la democracia. In: Pan American Health Organization. Sociedad, violencia y salud. Memorias de Conferencia Interamericana sobre Sociedad, Violencia y Salud. Washington, D.C: Washington, D.C.: OPS; 1996: 9-16.
11. Pan American Health Organization. La violencia: un problema de salud pública que se agrava en la región. *Bol Epidemiol* 1990;11:1-7.
12. Pan American Health Organization, Division of Health and Human Development. Cultural Norms and Attitudes on Violence in Selected Cities of the Region of the Americas. Project ACTIVA. Washington, D.C.: PAHO; 1996. (Mimeo).
13. Carrión F. De la violencia urbana a la convivencia ciudadana. In : Concha Eastman A, Carrión F, Cobo G, eds. Ciudad y violencias en América Latina. Quito: Programa de Gestión Urbana; 1994: 5-22.

14. Vanderschueren F. La violencia urbana, los pobres de la ciudad y la justicia. In: Concha Eastman A, Carrión F, Cobo G, eds. Ciudad y violencias en América Latina. Quito: Programa de Gestión Urbana; 1994: 5-22.
15. Schmallegger F. Criminology today. Englewood Cliffs: Prentice Hall; 1996.
16. Hentig HH. Robo con fuerza en las casas. Robo con violencia o intimidación. In: Hentig HH. Estudios de psicología criminal. 4a. ed, Vol I. Madrid: Espasa-Calpe; 1980.
17. National Research Council. Understanding and preventing violence. Washington, D.C.: National Academy Press; 1993.
18. Levine FJ, Rosich KJ. Social causes of violence. Crafting a science agenda. Washington, D.C.: American Sociological Association; 1996.
19. U.S. Department of Justice, Bureau of Justice Statistics. Criminal victimization in the United States, 1994. Washington, D.C.: U.S. Department of Justice; 1997: viii.
20. Yunes J. Mortalidad por causas violentas en la región de las Américas. *Bol Oficina Sanit Panam* 1993;114:302-314.
21. Centro de Pesquisa e Documentação de História Contemporânea do Brasil, Instituto de Estudos da Religião. Lei, justiça e cidadania. Direito, victimização e cultura política na região metropolitana do Rio de Janeiro. Rio de Janeiro: CPDOC.FGV/ISER; 1997.
22. Sanjuán AM. La criminalidad en Caracas: percepciones y realidades. *Rev Venezolana Econ Ciencias Soc* 1997; 3:215-254.
23. Concha A, et al. Estrategias de la alcaldía de Cali para enfrentar la inseguridad y la violencia. In: Concha Eastman A, Carrión F, Cobo G, eds. Ciudad y violencias en América Latina. Quito: Programa de Gestión Urbana; 1994;121-153.
24. Cruz JM. Los factores posibilitadores y las expresiones de la violencia en los noventa. *Estudios Centroam ECA* 1997; 52:977- 991.
25. Yunes J, Rajs D. Tendência de la mortalidade por causas violentas en la población general e entre los adolescentes y jóvenes de la região de las Américas 1994. *Cad Saúde Pública* 1994;10 (supl. 1):88-125.
26. Akerman M. Mapa de risco da violência da cidade de São Paulo: explorando os diferenciais intra-urbanos. Presentado en Seminario sobre violencia criminal urbana. Rio de Janeiro: Inter-American Development Bank; 1997. (Mimeo).
27. Oviedo Saavedra ER. Percepción de inseguridad en la ciudad. Entre lo imaginario y lo real. El caso del gran Santiago. In: Concha Eastman A, Carrión F, Cobo G, eds. Ciudad y violencias en América Latina. Quito: Programa de Gestión Urbana; 1994:275-312.

28. Guerrero R. Prevención de la violencia a través del control de sus factores de riesgo. Presentado en Reunión sobre El Desafío de la Violencia Criminal Urbana. Río de Janeiro: Inter-American Development Bank 1997. (Mimeo).
29. Sisti E. Consideraciones preliminares sobre la investigación de la violencia como problema de salud pública, a través de puntos centinelas. San Salvador: Instituto Universitario de Opinión Pública; 1997. (Mimeo).
30. Pan American Health Organization, Division of Health and Human Development. Documentation on the database compiled. Multicenter Study on Cultural Norms and Attitudes Toward Violencia. Project ACTIVA. Washington, D.C.: PAHO, Division of Health and Human Development; 1998. (Mimeo).
31. Ferrán Aranaz M. SPSS para Windows. Programación y análisis estadístico. Madrid: McGraw Hill; 1996.
32. Hopkins KD, Hopkins BR, Glass GV. Estadística básica para las ciencias sociales y del comportamiento. Mexico City: Prentice-Hall Hispanoamericana; 1997.
33. Siegel S. Estadística no paramétrica aplicada a las ciencias de la conducta. Mexico City: Editorial Trillas; 1974.

Research Coordination
Health and Human Development Division
Research in Public Health

TECHNICAL PAPERS

1. Protocol of the Multicenter Study: Cultural Norms and Attitudes Toward Violence in Selected Cities of Latin America and Spain, Project ACTIVA
2. Questionnaire and manuals of the Multicenter Study: Norms and Attitudes Toward Violence in Selected Cities of Latin America and Spain. Project ACTIVA
3. Who is Violent? Factors Associated with Aggressive Behaviors in Selected Cities of Latin America and Spain. Project ACTIVA
4. Victimization from Urban Violence: Levels and Related Factors in Selected Cities of Latin America and Spain. Project ACTIVA

To obtain information or order copies of the technical papers, please contact the following address:

Research Coordination/Research Grants Program
Health and Human Development Division
Pan American Health Organization
525 – 23rd Street, N.W.
Washington, DC. 20037, USA
Telephone: 202 974-3117
Facsimile: 202 974-3680
e-mail: RGP@paho.org